



DATE: July 31, 2001

TO: Governor's K-12 Public School Funding Advisory Council

FROM: Dan Dodds, Tax Policy Analyst

RE: Local Tax Effort Required to Fund Schools in Montana

## Introduction

House Bill 625, passed by the 2001 legislature, directs the Governor and the Superintendent of Public Instruction to study school funding. One of the issues to be studied is "if appropriate disparity exists in the current local tax effort necessary to fund school districts." This paper provides information for the advisory council to use in answering that question.

Standards for school *spending* equity have been spelled out in judicial decisions and federal legislation. No comparable standards for equity in school taxes exist.<sup>1</sup> The council must consider the criteria to be used to decide whether disparities in local tax efforts are appropriate and whether the disparities in Montana meet these criteria. To do this, the council will need to examine both the reasons for disparities in local tax effort and the size of the disparities.

This paper is divided into five sections. The first section provides a brief description of the school funding system in Montana. The second section discusses the reasons behind existing differences in local tax effort in Montana's school funding system, and what disparities in tax effort might be appropriate or inappropriate. The third section looks at the size of these disparities in tax effort. The fourth section examines ways these disparities could be reduced and by how much they could be reduced. The final section presents conclusions on local tax effort disparities, and poses questions for council discussion about the appropriateness of those disparities.

## Montana's School Funding System

This section presents a very brief overview of Montana's school funding system. The first purpose is to explain the role of property taxes in that system. The second is to introduce some terms used in school funding. It does not provide a complete

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<sup>1</sup> This paper does not address legal or constitutional issues relating to school funding and expresses no opinions about whether disparities in tax effort are legal or constitutional.

explanation of the school funding system. It leaves out many details and skips over important parts of the system that do not relate directly to the role of property taxes.

The current school funding system imposes upper and lower general fund spending limits on each school district. It provides state funding for part of each district's budget and requires each district to fund part of its budget from local revenues.

### School General Fund Budget Spending Limits

A district's spending limits depend on the type of district (elementary, high schools, K-12), the number of students in the districts and the district's special education costs. For all districts, the upper limit is about 25% higher than the lower limit. The spending limits are based on an "entitlement" and an allowance for special education costs. The "entitlement" is in two parts. There is a fixed "basic entitlement" for each district plus a "per-ANB entitlement" which depends on average enrollment, termed "average number belonging" or ANB.

The basic entitlement is intended to cover the basic costs of running a school district regardless of the enrollment. The basic entitlement for a high school district is \$209,873; for an elementary district it is \$18,889. The basic entitlement for a K-12 district is between the elementary and high school basic entitlements, and depends on the proportions of students in elementary school and in high school or an accredited middle school or junior high school. The basic entitlement does not depend on the number of schools in the district.

The per-ANB entitlement is intended to cover costs that depend on enrollment. The per-ANB entitlement is \$5,109 for the first high school student. It increases by \$5,108.50 for the second high school student and by \$5,108 for the third. This continues through the eight-hundredth student, with each additional student increasing the entitlement by \$0.50 less than the previous one. For a district with more than 800 high school students, each additional student increases the entitlement by \$4,709.50. The per-ANB entitlement for the first elementary student is \$3,834. Each additional elementary student through the thousandth one increases the per-ANB entitlement by \$0.20 less than the previous one. Each elementary student over 1,000 increases the entitlement by \$3,634.20.

The lower spending limit is called the BASE budget, where BASE stands for "base amount for school equity" (§ 20-9-306(1), MCA). It is equal to 80% of the entitlement plus 140% of allowable special education costs. The upper spending limit is 100% of the entitlement plus 175% of special education costs. School districts must adopt a general fund budget at least equal to the BASE budget.

There are two exceptions that allow districts to adopt a budget above the maximum. One exception is districts that had budgets above the maximum the year before the current system was put in place. These districts are not required to reduce spending to

meet the maximum. The other is that districts that have had a significant enrollment decline are not required to reduce spending immediately.

### Funding Sources for the School General Fund Budget

A school district's general fund budget is funded from a mix of state, local and other sources. The legislature makes an appropriation from the state general fund for the state's share. For the 2001-2002 school year, this is \$455 million. Two state general fund revenues are earmarked for school funding. One is the interest and income from the state school trust. It is about \$42 million per year, but varies from year to year. The other is statewide property taxes levied for school equalization. These taxes total 95 mills, or \$95 per \$1,000 of assessed valuation. This consists of 33 mills to support elementary schools, 22 mills for high schools, and 40 mills to support K-12 education in general. The revenue from these statewide property taxes has grown over time and is expected to be about \$150 million for the 2001-2002 school year excluding any non-levy revenue associated with this levy. Total revenue from these two earmarked sources will be about \$192 million. The difference between the \$455 million appropriated for schools and the earmarked revenues of \$192 million, which is \$263 million, will come from other state general fund revenues.

State funding goes to districts in two ways, direct state aid and guaranteed tax base aid (GTBA). Every district receives direct state aid equal to a portion of its entitlement (44.7% for the 2001-2002 school year) plus allowable special education costs. Direct state aid always is significantly less than the BASE budget. Almost three-fourths of districts also receive guaranteed tax base aid (GTBA). GTBA is allocated to districts using a formula based on the ratio of the districts' taxable value to the part of the BASE budget not funded by direct state aid. Districts where this ratio is less than 175% of the statewide average receive GTBA, and districts with a lower ratio receive more GTBA.

For illustration, assume that two elementary districts both have BASE budgets that are \$1 million more than they receive in direct state aid. District 1 has taxable value of \$20 million, and District 2 has taxable value of \$5 million. The statewide average of the ratio of taxable value to the part of BASE budgets not funded by direct state aid is 10.12 for elementary districts. For District 1, the ratio is 20 ( $20,000,000/1,000,000 = 20$ ). This is more than 175% of the statewide ratio, or 17.70 ( $10.12 \times 1.75 = 17.70$ ), so District 1 does not receive GTBA. District 2's ratio is 5 ( $5,000,000/1,000,000 = 5$ ), which is less than 17.70, so District 2 does receive GTBA.

GTBA takes the form of a subsidy per mill that a district levies to fund its BASE budget. This subsidy brings revenue per mill up to what it would be if the district's tax base were 17.70 times the part of its BASE budget not funded by direct state aid. For District 2, this "guaranteed tax base" is \$17.7 million. Its actual tax base is \$5 million. The GTBA subsidy per mill is one-thousandth of the difference between the guaranteed tax base and the actual tax base. District 2's GTBA subsidy per mill is \$12,700 ( $\$17.7 \text{ million} - \$5 \text{ million} = \$12.7 \text{ million} \times 0.001 = \$12,700$ ).

Districts have three other sources of funding for the general fund budget besides local property taxes. One is federal or other grants. Another is reappropriated fund balance from the previous year. The third is “non-levy revenue.” This is revenue from several taxes and fees other than property taxes. Non-levy revenue includes the local share of oil and gas production taxes, coal gross proceeds taxes, federal forest funds and other taxes and fees. In some cases, as with the mineral taxes, these taxes and fees are imposed as a substitute for property taxes. In previous years, it included reimbursements for property tax reductions in SB184 and other state legislation. Beginning with the 2001-2002 school year, it includes HB124 block grants, which replace local revenue from a variety of taxes and fees that now go to the state general fund, such as vehicle taxes and corporation license taxes from financial institutions.

Any difference between the district general fund budget and funding from the state, federal or other grants, reappropriated fund balance and non-levy revenue must be made up by local property taxes.

Statewide, for the 2000-2001 school year, school district general fund budgets are funded from the following sources:

- 49.1% from direct state aid including special education funding;
- 14.4% from guaranteed tax base aid;
- 2.0% from grants and reappropriated fund balance;
- 8.7% from non-levy revenue; and
- 25.8% from local property taxes.

### Non-General Fund School Budgets

The general fund budget is for direct education costs. Districts have separate budgets for transportation, retirement, debt service, building reserves and other uses. These budgets are outside of the spending limits and funding mechanisms discussed above.

Some districts receive federal impact aid, which is intended to make up for districts’ inability to tax federal or tribal property. These funds can be spent for any purpose but are not counted in the general fund budget. For schools that receive federal impact aid, some general education costs may be outside of the general fund budget.

### **Are the Reasons for Disparities in Local Tax Effort Appropriate?**

Taxpayers in all school districts in the state pay statewide property tax levies totaling 95 mills, or \$95 per \$1,000 of taxable value. Almost all school districts have additional local levies which vary between districts. Taxpayers in K-12 districts pay the levy for that district. Property that is not in a K-12 district is in both an elementary district and a high school district, and the property owner pays the levies for both.

Table 1 shows the range of local school levies. Some elementary districts do not levy any mills for their general fund budgets. The highest elementary levy of 144.7 mills is almost three times the average elementary levy of 52.8 mills. For high school districts and K-12 districts, the highest levy is almost twice the average mill levy.

<b>Table 1</b> <b>Local School Property Tax Levies</b>			
Type of District	Lowest	Average	Highest
Elementary	0.0 mills	52.8 mills	144.7 mills
High School	9.6 mills	42.4 mills	79.7 mills
K - 12	54.2 mills	111.6 mills	188.4 mills

### Reasons for Disparities

There are several reasons for these property tax differences. They include local choices of how much to spend on schools, differences in property tax bases, differences in total non-levy revenue available, differences in special education costs, changes in enrollment and differences in school size.

### *Local over-BASE Spending Decisions*

Each local school district chooses how much, if any, to spend over its BASE budget. With some exceptions, districts cannot spend more than 125% of their BASE budget; but within this range, spending is a local decision. If two otherwise identical districts make different choices of how much to spend over BASE, the district that spends more will have the higher levy. Suppose that both districts have taxable value of \$20 million, and District 1 chooses to spend \$100,000 more than District 2. Then District 1 will have to levy 5 mills more than District 2 (\$20 million x .005 = \$100,000).

This can also be expressed as a difference in property tax bills. For tax year 2001, 27.5% of the value of residential property is exempt from property tax and the taxable value is 3.543% of the remaining value. A \$100,000 house has taxable value of \$2,569 ( $.03543 \times .725 \times \$100,000 = \$2,569$ ). Each mill levied on a \$100,000 house requires the owner to pay \$2.57 in property taxes. A 5-mill difference in levies is a difference of \$12.85 in taxes on a \$100,000 house.

### *Tax Base Differences*

On average, local property taxes pay for about one-fourth of a school district's general fund budget. If two districts have the same budget and the same revenue from other

sources, they will have to raise the same revenue from property taxes. If they have different tax bases and do not both receive guaranteed tax base aid, they will have to levy different mills to raise the same amount of revenue. Suppose both districts must raise \$1 million from local property taxes. If District 1 has taxable value of \$20 million, it will have to levy 50 mills to raise \$1 million ( $\$20 \text{ million} \times .050 = \$1 \text{ million}$ ). If District 2 has taxable value of \$25 million, it must levy 40 mills to raise \$1 million ( $\$25 \text{ million} \times .040 = \$1 \text{ million}$ ).

### *Differences in Non-levy Revenue*

Districts vary widely in the amount of non-levy revenue they receive. Non-levy revenue averages 9.7% of the BASE budget, but non-levy revenue ranges from 2% to 63% of the BASE budget. Every dollar of non-levy revenue a district has reduces the revenue it must raise from local mill levies by one dollar. Some districts with very high non-levy revenue can fund their BASE budgets and some over-BASE spending without levying any local property tax mills.

### *Differences in Special Education Costs*

Special education is a relatively small part of total school costs, but it varies from district to district. Allowable special education costs range from 0% to 9% of the BASE budget. A district with higher special education costs receives more state funding but it also has a higher BASE budget. A \$1 increase in allowable special education costs increases state funding by \$1 but increases the BASE budget by \$1.40. Suppose two districts spending at the BASE level are otherwise identical except that one has \$100,000 more in allowable special education costs. That district will have to spend \$140,000 more but will only receive \$100,000 more in state funding. It will have to raise \$40,000 more from local property taxes.

### *Changes in Enrollment*

Changes in enrollment in a district can affect a district's mill levies in two ways. One is due to the fact that state school funding is based on actual ANB from the last school year rather than estimated ANB from the current school year. If a school has an increase in enrollment, it will not receive additional state funding for the additional students until a year has passed. If the school wants to maintain spending per student, it will have to increase property taxes for one year to make up for the lag in state funding. On the other hand, if a school has a decrease in enrollment, its state funding will not be reduced for a year. It can lower its mill levy for a year while keeping spending per student the same.

Decreases in enrollment can impact a district's mill levy in another way. Districts that have had a significant enrollment decline are allowed to exceed the maximum spending limit. This allows them time to reduce costs, such as staffing, textbooks, and facilities

that may be inflexible in the short run. However, state funding declines along with enrollment, with a one-year lag. Thus, a district in this position will have to fund a larger share of its budget with local property taxes after one year.

### *District Size*

The number of students in a district affects the revenue per student that must be raised from property taxes. A district's BASE budget and its direct state aid both depend on its entitlement, which depends on ANB. The BASE budget is 80% of the entitlement plus 140% of allowable special education costs. Direct state aid is 44.7% of the entitlement plus 100% of special education costs. A district with fewer students has a higher total entitlement per student. It receives more direct state aid per student but is required to spend even more per student. If everything else is the same, this difference must be made up with higher property taxes per student.

Consider two high school districts, where District 1 has ANB of 50 and District 2 has ANB of 1,000. The total entitlement per student is \$9,294.21 for District 1 and \$5,078.97 for District 2.<sup>2</sup> The BASE budget includes 80% of the entitlement, so if the districts have the same special education costs per student, District 1's BASE budget per student is \$3,372.03 higher ( $0.8 \times \$9,294.21 - 0.8 \times \$5,079.17$ ). Direct state aid includes 44.7% of the entitlement, so District 1's direct state aid per student is \$1,884.12 higher ( $0.447 \times \$9,294.21 - 0.447 \times \$5,079.17$ ). If other funding per student is the same, District 1 must raise \$1,487.91 ( $\$3,372.03 - \$1,884.12$ ) more per student from property taxes.

### What Disparities Are Appropriate?<sup>3</sup>

Courts and legislative bodies have established standards for equity of school *spending*. It is relatively straightforward to determine whether Montana's school funding system meets any particular standard for spending equity. Standards regarding the equity of taxes to pay for schools have not been established. It is not possible to apply a pre-existing tax equity test and decide whether Montana's school funding system passes. One way to proceed in this situation is to start from some general principles of tax equity.

One general principle of tax equity is that similarly situated taxpayers should pay similar taxes. This means that taxes should not be arbitrary or based on irrelevant factors. In the context of school funding, this principle implies that:

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<sup>2</sup> The entitlement for a high school district with ANB of 800 or less is  $\$209,873 + \$5,109 \times \text{ANB} - \$0.25 \times \text{ANB} \times (\text{ANB}-1)$ . With ANB of 50, this is \$467,710.50. The entitlement per student is \$9,294.21 ( $\$467,710.50/50$ ). The entitlement for a high school district with ANB greater than 800 is  $\$209,873 + \$3,972,400 + \$4,709.50 \times (\text{ANB}-800)$ . With ANB of 1,000, this is \$5,079,173. The entitlement per student is \$5,079.17 ( $\$5,079,173/1,000$ ).

<sup>3</sup> This paper discusses the appropriateness of tax effort disparities from a public policy perspective. It does not address their legality or constitutionality.

- Taxes should be the same across school districts unless there are relevant differences between the districts, and
- Taxpayers within a school district should pay the same taxes unless there are relevant differences between the taxpayers.

A second general principle of tax equity is that differences in taxes should be related in a rational way to relevant differences between taxpayers. This means that:

- There should be good reasons for differences in taxes, and
- The size of those differences should be related to the reasons justifying the differences.

Disparities in local tax effort may violate these principles if there are not good reasons for the disparities or if the disparities are too large. These principles also could be violated if there are good reasons for disparities but no disparities exist or the disparities are too small.

There are several differences between taxpayers that may justify differences in taxes:

- Differences in services.
- Difference in the cost of providing services.
- Ability to pay.

The first is differences in services that taxpayers receive, particularly where they have chosen different levels of services. If taxpayers in a jurisdiction have chosen to spend more on parks, or roads, or schools, they should pay more in taxes.

Differences in the costs of providing services may also justify differences in taxes. Whether higher costs justify higher taxes depends on why costs are higher. If costs are higher because of choices the taxpayer has made, such as where to live, we are more likely to consider higher taxes justified. Many people would consider higher taxes to pay higher transportation costs in a rural school district justified. On the other hand, we are less likely to consider higher taxes justified if the reasons for higher costs are beyond taxpayers' control. Few people would consider it appropriate to levy higher taxes on the parents or neighbors of students with special needs.

Another possible relevant difference between taxpayers is ability to pay. When government services benefit identifiable groups, we sometimes ask those groups to pay for them with fees or targeted taxes. With education, the direct benefits go to children, who generally pay few taxes. We all receive the indirect benefits of living in a society where most of the population has a good education. In cases like this, generally accepted principles of taxation support the notion that everyone should pay and that taxpayers who can pay more should pay more.

Using property taxes to finance schools presumes that ability to pay is relevant, and that the value of a taxpayer's property in a district is an appropriate measure of the taxpayer's ability to pay.



These two principles may be widely accepted, but so is an exception to them. When taxes are levied for local purposes or for spending that is a local responsibility, it may be appropriate to accept differences in taxes that violate these two principles. It may not be desirable for residents of a poor jurisdiction to pay higher taxes for police and fire protection or other local services, but such differences are generally accepted.

### Are the Reasons for School Tax Disparities in Montana Appropriate?

The reasons for differences in local tax effort to fund schools in Montana can be tested against the two principles of tax equity and the exception to them outlined above.

#### *Local over-BASE Spending Decisions*

Differences in taxes due to differences in local over-BASE spending decisions satisfy the two principles. If two otherwise identical districts have the same budget, they will levy the same local property taxes. This satisfies the first principle. If taxpayers in one of the districts choose to spend more, they will pay higher taxes. A difference in local spending choices is a relevant reason for differences in taxes, and the difference in taxes is proportional to the difference in spending. This satisfies the second principle.

The Montana constitution divides responsibility for school funding between the state and local districts. This implies that differences in local tax effort to fund the local share of school spending might be acceptable even if they violated the two principles.

#### *Tax Base Differences*

A difference in taxes due to differences in local tax bases violates the first principle. The owners of property with the same value in different districts will pay different taxes.

It also violates the second principle. If two districts differ only in their tax base, taxpayers in the district with higher total taxable value will pay lower taxes than some taxpayers in the other district with less property. Suppose District 1 levies 40 mills. The owner of a \$100,000 house in District 1 will pay \$102.76 in property tax (40 mills x \$2.569 per mill on \$100,000). If District 2 is required to levy 50 mills because of a lower tax base, the owner of a \$100,000 house there will pay \$128.45 (50 mills x \$2.569 per mill on \$100,000). The owner of a house in District 2 worth more than \$80,000 will pay more than the \$102.76 paid by the owner of a \$100,000 house in District 1.

Tax differences due to tax base differences may be acceptable to the extent that education is a local responsibility.

In some cases, federal impact aid may compensate for differences in local tax bases.

### *Differences in Non-levy Revenue*

Differences in taxes due to differences in non-levy revenue violate both principles. If two districts are the same except that one levies fewer mills because it has more non-levy revenue, a taxpayer in that district will pay lower property taxes than one with equivalent property in the other district. A taxpayer in the district with higher non-levy revenue will pay lower property taxes than some taxpayers with lower valued property in the other district.

Tax differences due to differences in non-levy revenue may be acceptable to the extent that taxes are funding the part of education that is a local responsibility.

### *Differences in Special Education Costs*

Differences in taxes due to differences in special education costs probably do not satisfy the two principles. Differences in special education costs are due primarily to differences in children's needs. These differences happen. People do not choose them. Individual taxpayers can choose to avoid high special education costs by choosing where to live, but society as a whole can not.

Differences in taxes due to differences in special education costs may be acceptable to the extent that special education is a local responsibility.

### *Changes in Enrollment*

It is difficult to see how temporary tax effort disparities due to the fact that the state school funding formula uses last year's ANB could satisfy the two principles. It also is difficult to see how disparities arising as a consequence of using last year's ANB count could qualify as a local responsibility. These disparities are due to the state temporarily giving less or more funding per student than normal.

When tax effort disparities are due to a general *decline* in enrollment in some districts, the issues are less clear-cut. Costs are high in districts with declining enrollment because some types of costs are difficult to reduce quickly. The differences in costs are real, and at least to some extent, they were locally chosen in the past. On the other hand, the disparity arises because local voters cannot undo past decisions. Individual taxpayers can avoid paying higher taxes by moving. However, this would not eliminate costs in the district they left and would exacerbate the situation for those who remain. It might also increase costs in the districts the taxpayers move to. These cost differences due to a district's enrollment change may be an appropriate reason for differences in taxes and they may be a local responsibility, but it also can be argued that they are not.

### *District Size*

The entitlement formula provides more funding per student to districts with lower enrollment but requires even more spending per student. If this formula accurately

reflects differences in costs due to school size, differences in tax effort due to district size may satisfy the two principles. Taxpayers can choose where to live. They also can choose whether to consolidate school districts. Thus, taxpayers can avoid or change cost differences due to district size. Differences in taxes due to differences in district size may also be a local responsibility.

### Relative Importance of the Causes of Disparities

The reasons for disparities in tax effort outlined above do not all play an equal role in causing the observed disparities in school tax effort in Montana. It is necessary to know which reasons play larger and smaller roles in causing the observed disparities to know whether they are appropriate. The observed disparities may be appropriate if appropriate reasons cause most of them; and may be inappropriate if most of the observed disparities are due to inappropriate reasons.

Two methods were used to distinguish the important from the unimportant causes of tax effort disparities. First, a statistical tool called multiple regression analysis was used to identify those causes that are statistically significant, i.e., important. Multiple regression analysis evaluates the statistical relationship between a “dependent variable” and a set of “explanatory variables” theoretically selected as the likely causes behind variation in the dependent variable. In this case we want to explain variation in tax effort required to fund schools (the dependent variable), as measured by the number of mills levied to meet school funding requirements. Theoretically, variation in tax effort depends on variation in the set of causes discussed above: *the general fund budget, the tax base per ANB, non-levy revenue per ANB, special education costs, and district size.*

The statistical analysis results in an estimated *coefficient* for each of the explanatory variables. This coefficient, which is simply a number produced by the analysis, indicates for each variable the relative amount by which tax effort is changed for a unit change in the variable, and whether an increase in the variable results in an increase or a decrease in the dependent variable.

A relatively large coefficient indicates that the variable in question makes a bigger difference in tax effort than variables with relatively smaller coefficients. The sign of the coefficient, plus or minus, indicates whether an increase in the variable results in an increase or decrease in the dependent variable. A coefficient with a negative sign indicates that an increase in that particular explanatory variable will result in a decrease in the dependent variable. For example, theoretically, an increase in non-levy revenue should result in a decrease in the number of mills required to fund the BASE budget. The multiple regression analysis will test this relationship two ways: first, the coefficient may or may not be statistically significant. If it is not statistically significant, this indicates that variation in the variable has little or no impact on variation in the dependent variable. Second, if the size and the sign of the coefficient are not what was expected, the actual relationship with mill levies might be different than what was expected.

In multiple regression analysis the statistically measured impact that a change in one of the explanatory variables has on the dependent variable is measured as if all the other explanatory variables are held constant. For example, the coefficient for non-levy revenue shows the impact on tax effort for a unit change in this variable under the assumption that the values for all of the other variables in the equation are held constant across all school districts.

A series of regressions were run with mill levies as the dependent variable and the causes of tax effort disparities as explanatory variables. Important causes will consistently have statistically significant coefficients with the same sign. One set of regressions was run with BASE mills as the dependent variable and another with total general fund mills as the dependent variable. This was done because local spending decisions affect total mills, but not BASE mills. In each group, a regression was run for each type of school district. Separate regressions were run for the elementary and high school BASE mills of K-12 districts. Table 2 shows the signs of the regression coefficients. The letter “s” indicates those that are statistically significant.

<b>Table 2</b> <b>Signs and Significance of Coefficients in Regressions of Mill Levies on Causes of Variation</b>									
Source of Variation in Mill Levies Per ANB	BASE Mills					Total General Fund Mills			
	High School Dist.	K-12		Elem.	Elem.	High School Dist.	K-12		Elem.
		Dist., Elem. Mills	High School Mills	Dist.	Dist.		Dist.	Middle School	Dist.
				without Middle School	with Middle School				with Middle School
G. Fund Budget	n/a	n/a	n/a	n/a	n/a	+s	+s	+s	+s
Taxable Value	-	-s	-s	-s	-s	-s	-s	-s	-s
Non-Levy Rev.	-s	-s	-s	-s	-s	-	-s	-	-
Special Ed	-	+	-	-	+	-s	-s	+	-
District Size	+	+s	-	+s	+	+s	-	+s	-

The regression results were combined with an examination of the variation between districts for each cause. If one of the causes varies little between districts, it is unlikely to contribute much to observed tax effort disparities.

### *General Fund Budget*

Seventy-eight percent of districts have general fund budgets that are over BASE. The coefficient of general fund spending per student is positive and statistically significant in all regressions for total mill levies. What this suggests is that when all the other sources of variation in total general fund mills are held constant, an increase in the total general fund budget will result in an increase in mills levied to fund that budget.

*Spending* per student also varies significantly between districts within the limits imposed by the BASE and maximum budgets. The maximum spending per student is almost five times the minimum.

### *Taxable Value Differences*

Guaranteed tax base aid eliminates the effect of tax base differences on mills that must be levied to fund the BASE budget for the 75% of districts that receive it. For the other 25%, a higher tax base per student translates into fewer mills that must be levied to fund the BASE budget.

Most districts must fund all of their over-BASE spending from local mill levies, and almost all must levy local mills to reach their maximum budget. Taxable value per student determines the taxpayer cost of over-base spending. The higher the taxable value per student, the fewer mills that must be levied to spend a dollar more per student.

The coefficient of taxable value per student is negative in all of the regressions and is statistically significant in all but one. This indicates that districts with larger taxable value per student tend to levy fewer mills. Differences in taxable value per student are very large. The highest is over 6,500 times the lowest.

### *Non-levy Revenue Differences*

The coefficient of non-levy revenue per student is negative and statistically significant in all of the BASE mills regressions. This indicates that, all other sources of variation held constant, an increase in non-levy revenue results in a statistically significant reduction in BASE mills on average. It is negative in all total mills regressions, but is statistically significant only in one.

There are large differences in the non-levy revenue districts receive. It ranges from 2% of the BASE budget to 63%. This is the primary cause for differences in the fraction of the BASE budget that must be funded from property taxes, which ranges from 0% to 40%. Some districts have enough non-levy revenue that they can fund their BASE budget without levying local mills.

Differences in non-levy revenue are an important cause of differences in BASE mills, but appear to be less important for total mills.

### *Special Education Costs Differences*

The coefficients of special education costs per student do not all have the same sign and most are not statistically significant.

There is considerable variation between districts in special education costs, but it is a relatively small fraction of the budget for all districts. It varies from 0% to 9% of the BASE budget. Special education costs impact property taxes that must be levied to fund the BASE budget because the state provides funding for 100% of the costs but the BASE budget includes 140% of these costs. The difference in funding that must be made up from property taxes ranges from 0% to 3.6% of the BASE budget.

Differences in special education costs do not appear to be an important cause of differences in tax effort.

### *District Size (ANB)*

If other revenues per student were the same, districts with fewer students would have to levy more mills to fund their BASE budgets. Smaller districts would not necessarily levy more mills in total.

The regression analyses indicate no consistent relationship between mill levies and district size. The coefficient of ANB is statistically significant in less than half of the regressions and its sign is positive in more than half of the regressions. Contrary to expectations, the sign is positive in four of the five BASE mill regressions. In all cases where district size is statistically significant, the sign is positive. This indicates that whatever relationship there is between district size and mill levies is due primarily to factors other than the school funding formula.

One possible reason for this, is that resources available to fund schools can affect decisions about consolidation and district size. This is seen most clearly in the case of the four “non-isolated” elementary districts. These are independent elementary districts that are geographically close to schools in another district. Non-isolated districts receive only half of the direct state aid indicated by the funding formula. Despite this, the four non-isolated districts all have low mill levies. It may be that the non-isolated districts have not combined with another district at least in part because they have a concentration of non-property tax revenue or high property value per ANB. The same forces may be at work in many decisions of whether to consolidate districts.

### *Changes in Enrollment*

Changes in enrollment significantly affect the mill levies for some schools. The district with the highest mill levy, Dupuyer elementary, had a significant one-year increase in enrollment when a nearby private school closed. Several districts are over their maximum budgets and have high corresponding mill levies because of declines in enrollment.

Most districts have a small year-to-year change in enrollment, and therefore see a small effect from the one-year lag in the state funding formula. It is a small component of the overall variation in mill levies.

## Conclusions on Sources of Disparities

*Differences in mills required to fund districts' BASE budgets are primarily due to differences in non-levy revenue and taxable value per student. Other factors play a smaller role. Differences in non-levy revenue and taxable value probably are not appropriate reasons for tax effort disparities.*

*Differences in mills to fund over-BASE spending are due to a combination of local spending choices, differences in non-levy revenue per student and differences in tax base per student. A difference in local spending choices probably is an appropriate reason for tax effort disparities. Differences in non-levy revenue and tax base are probably not appropriate reasons for tax effort disparities. However, if over-BASE spending is purely a local responsibility, then these disparities may be acceptable for the over-BASE budget.*

## **Are Disparities in Tax Effort of Appropriate Size?**

A suitable measure of tax effort required to fund the BASE budget is the number of mills a district must levy for this purpose. Differences in mills required to fund districts' BASE budgets are due primarily to differences in local resources, primarily non-levy revenue and taxable value of property. This is an inappropriate reason for tax effort disparities, so disparities will be appropriate only if they are small. Most districts should have similar tax effort and there should be no districts far from the norm. If part of the BASE budget is a local responsibility, larger disparities may be acceptable.

Differences in mills to fund over-BASE spending are due to a combination of appropriate and inappropriate reasons - local spending choices, local tax base per student, and non-levy revenue per student. Differences due to local spending choices can be large, but differences due to local ability to pay should not be. Measuring over-BASE tax effort by the mills levied for over-BASE spending would mix spending decisions with ability to pay. Instead, over-BASE tax effort will be measured as mills that must be levied to spend an additional dollar per student (mills/\$/ANB). This is a measure of the cost to local taxpayers of additional spending and is independent of the level of spending they choose.

To the extent that variation in over-BASE spending reflects a local responsibility driven in part by variations in taxpayer spending preferences, then disparities in over-BASE tax effort, as measured by mills/\$/ANB may be large and remain acceptable. Alternatively, to the extent that over-BASE spending reflects a shared responsibility between the state and local school districts, large discrepancies may be less acceptable.

One disparity that should exist is between districts that receive federal impact aid and districts that do not. Federal impact aid is intended to make up for federal or tribal impacts on a district's tax base or student population. If the districts receiving federal impact aid have those impacts, they will have higher tax effort because the federal impact aid revenue is not considered under the current school funding formula. If the

aid truly compensates for the impacts, the differences in tax effort will be acceptable. Districts receiving federal impact aid do have higher tax effort on average. Tax effort differences within the groups of districts with and without impact aid are similar. The districts receiving impact aid have been excluded from the analysis because including them would overstate the disparities due to other causes.

The four non-isolated districts also call for separate treatment. These districts exist at least partly because they represent concentrations of resources to pay for schools. They have low tax effort, but they also receive less state funding. If they were included they would skew the results and would stand out as outliers demanding an explanation. Since the explanation is already known, they will be excluded from the analysis.

One district, Dupuyer, was excluded because its tax effort was temporarily affected by a large increase in enrollment.

In addition to the size of disparities, this section looks at whether they are symmetric. Are the disparities due to some districts having higher than normal tax effort, to some districts having lower-than normal tax effort, or to both? Different shapes of the distribution of disparities may point to different methods of reducing them if they are too large.

### Disparities in BASE Mills

Table 3 shows the range of BASE mills. It shows total BASE mills, which includes the statewide 95-mill school levies, and local BASE mills, which exclude the statewide mills. The statewide levies are 33 mills for elementary schools, 22 mills for high schools, and 40 mills for education in general. For the 2000-2001 school year, 60% of the 40-mill levy went to elementary schools and 40% went to high schools. Allocating the 40 mills this way gives 57 mills to elementary schools and 38 mills to high schools.



The range is the difference between the highest and the lowest mill levy. It measures only the extremes and tells nothing about how tightly grouped most of the values are. As shown in Table 3 the lowest total BASE mill levy for each type of school district is the statewide mill levy. There are schools in each type of district that levy no local BASE mills.

Table 3 Range of Base Mills						
Type of District & Levy	Total BASE Mills			Local BASE Mills		
	Low	High	Range (Low - High)	Low	High	Range (Low - High)
Elementary	57	110.4	53.4	0	53.4	53.4
K-12, Elementary Levy	57	107.9	50.9	0	50.9	50.9
High School	38	70.4	32.4	0	32.4	32.4
K-12, High School Levy	38	79.2	41.2	0	41.2	41.2

The range is higher for elementary levies than for high school levies. Taxpayers in districts with the highest BASE mills are paying about twice as much to support BASE school spending as taxpayers in districts with the lowest mills.

Table 4 shows this range expressed as a difference in property tax bills. As was shown above, the taxable value of a house with market value of \$100,000 is \$2,569. A one-mill difference in levies on a \$100,000 house is a \$2.57 difference in property taxes. The difference between the highest and lowest cost of BASE mills to the owner of a property with \$100,000 of market value ranges from \$83.24 for high school districts to \$137.18 for elementary districts.

Table 4 Range of Base Mills as Tax on \$100,000 House						
Type of District & Levy	Total BASE Mills			Local BASE Mills		
	Low	High	Range (Low - High)	Low	High	Range (Low - High)
Elementary Districts	\$146.43	\$283.62	\$137.18	\$0.00	\$137.18	\$137.18
K-12 Districts, Elementary Levy	\$146.43	\$277.20	\$130.76	\$0.00	\$130.76	\$130.76
High School Districts	\$97.62	\$180.86	\$83.24	\$0.00	\$83.24	\$83.24
K-12 Districts, High School Levy	\$97.62	\$203.46	\$105.84	\$0.00	\$105.84	\$105.84

Table 5 shows another measure of differences within a group, the coefficient of variation. The coefficient of variation measures the dispersion of a group of numbers relative to their average and is expressed as a percentage. In most cases about 2/3 of the values are within that percentage of the average. A smaller coefficient of variation means that the majority of values are closer together.

Table 5 shows the coefficient of variation calculated both with and without the statewide mill levies. The coefficient of variation is smaller with the statewide mills included. This is because including the statewide mills increases the average but leaves the distribution of values around the average unchanged; the higher the coefficient, the greater the dispersion or variation in mill levies.

<b>Table 5</b> <b>Coefficient of Variation of Base Mills</b>		
Type of District & Levy	Coefficient of Variation Total Mills	Coefficient of Variation Local Mills
Elementary Districts	18.3%	54.4%
K-12 Districts, Elementary Levy	18.6%	62.9%
High School Districts	11.6%	31.9%
K-12 Districts, High School Levy	20.3%	56.7%

For all four categories, the coefficient of variation is 20% or less for total school mills. In other words, about 2/3 of all districts levy total BASE mills that are within 20% of the average mill levy. The coefficient of variation is much larger when just the local mill effort is considered. The mill levy effort on the state mills is equal for all taxpayers regardless of the tax base in the school district. The variation in local tax effort is much larger relative to the average tax effort when the state mills are not included. When only local BASE mills are considered, the coefficient of variation ranges from 32% to 63%.

Together, the ranges and coefficients of variation indicate that the distributions of elementary mills and high school BASE mills are fairly compact if the total (statewide mills and local mills) are both considered. However, the local mill effort required when considered without the statewide mill has considerably more disparity.

A majority of the total mill levies are fairly close together, and there are no mill levies that stand out as extremely different from the group. This is confirmed by looking at plots of the two distributions.

Figure 1 shows the distributions of elementary BASE mills. The two horizontal scales show the number of BASE mills with and without the state mills.

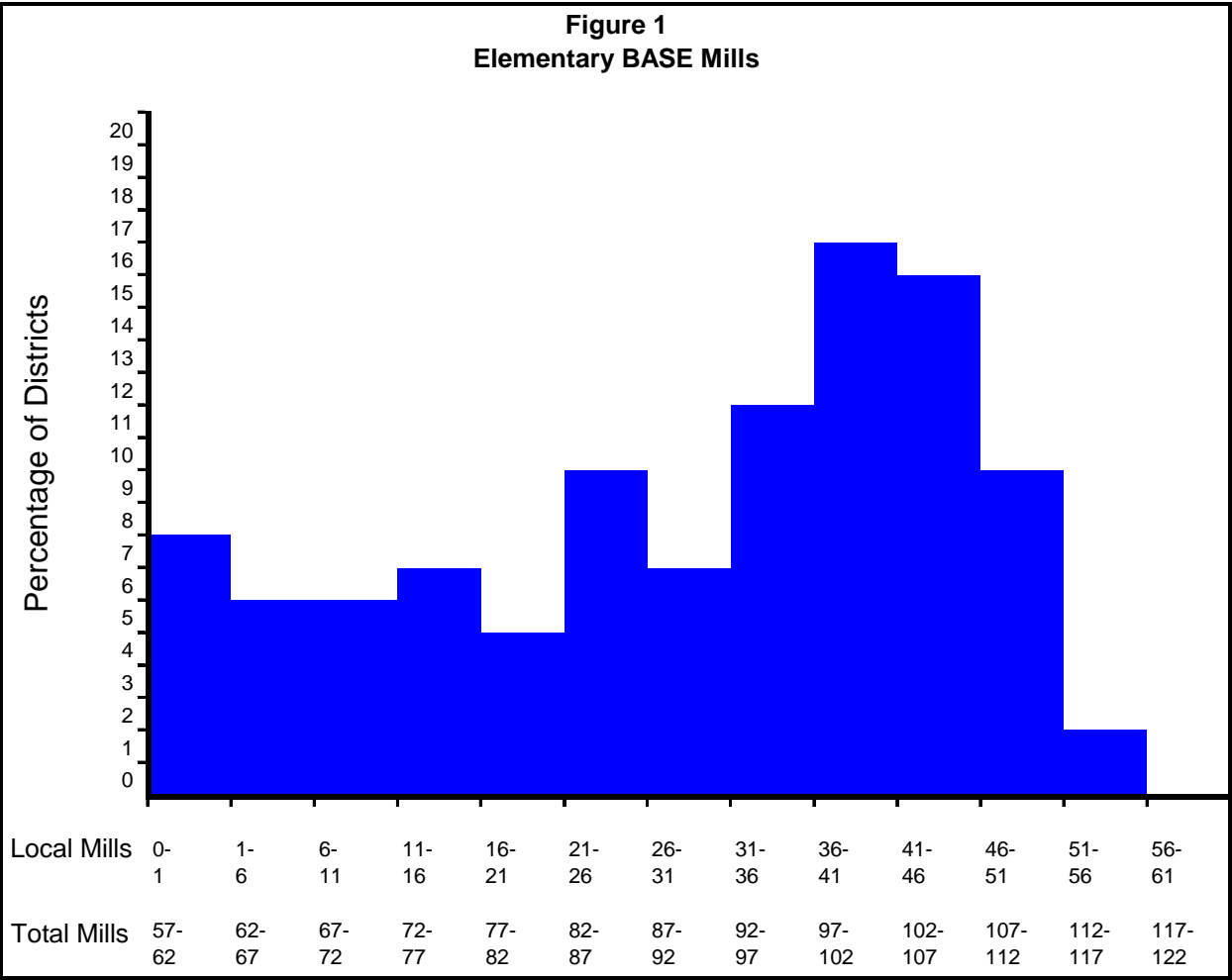
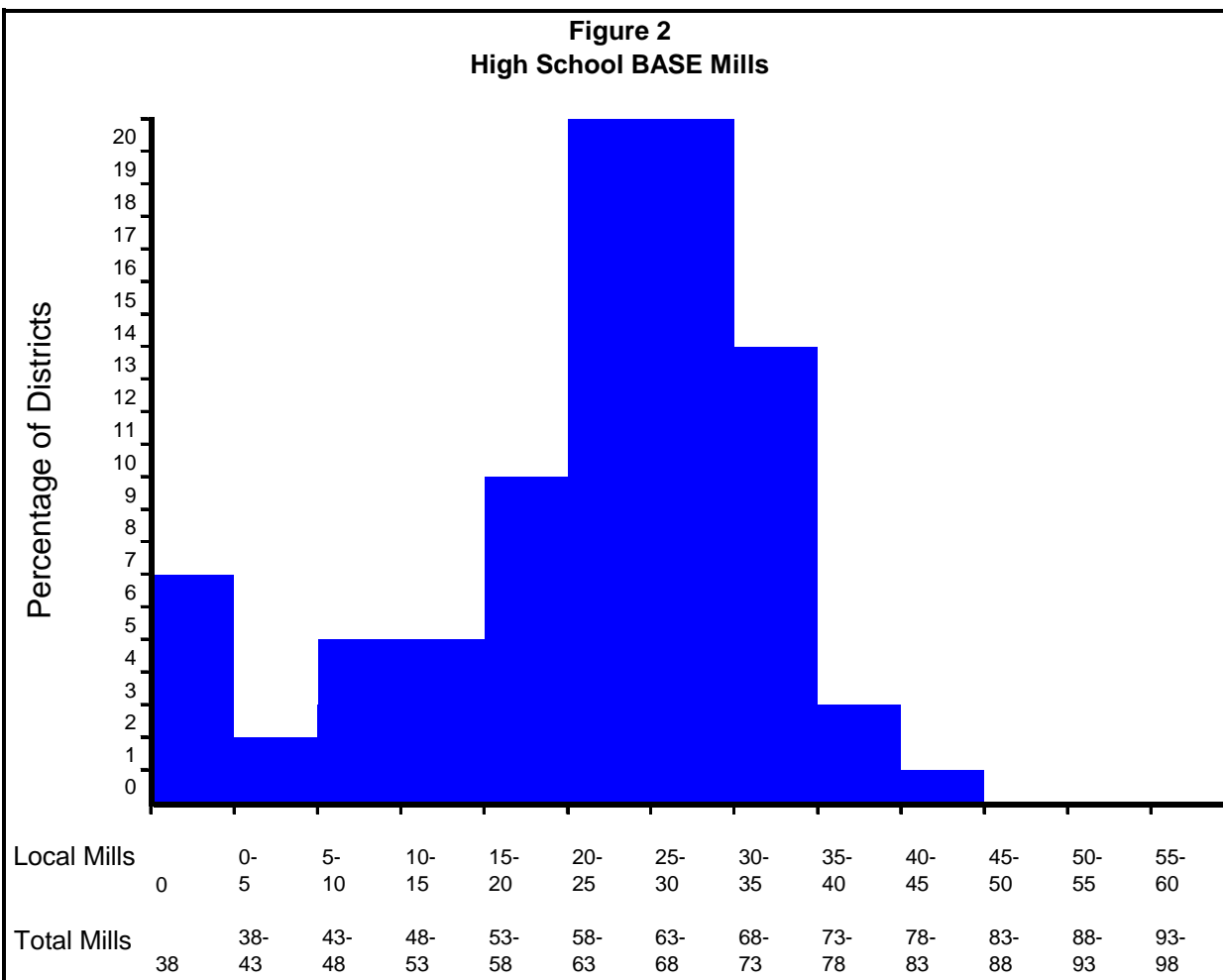


Figure 2 shows the distribution of high school BASE mills.



Both the elementary and high school distributions have two peaks, a larger one in the upper part of the range and a smaller one at zero local mills. In both cases, more than half of the distribution is in the upper half of the range. The midpoint of the elementary distribution is 83.7 total mills or 30.7 local mills, and 59.9% of districts have an elementary BASE levy above the midpoint. The midpoint of the high school distribution is 58.6 total mills or 20.6 local mills, and 70.3% of districts levy more than this. In both cases, many districts are levying close to the maximum number of mills levied, a significant number are levying zero or a few local mills, and there are fewer districts in between.

There are two main sources of the differences in BASE mills: differences in non-levy revenue per student and in taxable value per student. The non-levy revenue a district receives determines the amount it must raise through mill levies to fund its BASE budget. Taxable value determines the number of mills that must be levied to raise that revenue.

Most of the districts in the upper half of each range receive guaranteed tax base aid. Guaranteed tax base aid is a subsidy per BASE mill that guarantees districts a minimum revenue per mill. If all districts of each type receiving GTBA had the same non-levy revenue per student, they would have the same BASE mills. The variation around the larger peak in each distribution is due primarily to the fact that districts receiving GTBA have different amounts of non-levy revenue per student. The difference in non-levy revenue requires school districts receiving GTBA to raise different amounts per student from property taxes.

The group of districts at or near zero mills consists of districts that have high non-levy revenue per student, high taxable value per student, or both. Some of these districts have enough non-levy revenue that they have to raise little or no revenue from local property taxes. Others have such high taxable value per student that they can raise the required revenue with low mill levies. Some districts have both.

Disparities in BASE mills probably are appropriate only to the extent that part of the BASE budget should be a local responsibility. Disparities in BASE mills due to the fact that local property taxes pay different shares of the BASE budget probably are not appropriate.

#### Disparities in Mills/\$/ANB for Over-BASE Spending

Table 6 shows the average and the range of mills/\$/ANB by type of school district. Since there is no state funding for over-BASE spending, K-12 districts do not have separate tax efforts for elementary and high school levies.

<b>Table 6</b> <b>Over-BASE Mills/\$/ANB</b>					
Type of District	Districts	Low	Average	High	Range (Low - High)
Elementary Districts	236	0.0012	0.0854	7.7778	7.7766
High School Districts	81	0.0054	0.0298	0.0596	0.0543
K-12 Districts	47	0.0248	0.0701	0.1741	0.1493

Table 6 shows that with respect to elementary school districts, taxpayers in the lowest district would only have to have an increase of 0.0012 mills on all property in the district in order to provide an additional dollar of funding for every student in the district. On the other hand, taxpayers in the highest elementary district would have to have an increase of nearly 8 mills in order to raise an additional dollar of funding for every student in the district.

Average tax effort required to spend an extra dollar per student is much lower for high school districts than for elementary and K-12 districts. The mill levy range also is lower

for high school districts. The mill levy range for elementary districts is much higher than for high school and K-12 districts.

The mill levy range is much larger relative to the average for mills/\$/ANB than for BASE mills, particularly for elementary districts.

Table 7 shows the same information as Table 6 in terms of additional property tax on a \$100,000 house. A \$100,000 house has taxable value of \$2,569 and an additional mill on a \$100,000 house increases the tax bill by \$2.569.

<b>Table 7</b> <b>Property Tax on \$100,000 House/\$/ANB</b>					
Type of District & Levy	Districts	Low	Average	High	Range (High - Low)
Elementary Districts	236	\$0.0031	\$0.2194	\$19.9812	\$19.9791
High School Districts	81	\$0.0139	\$0.0766	\$0.1531	\$0.1387
K-12 Districts	47	\$0.0637	\$0.1801	\$0.4473	\$0.3828

Table 7 shows that a taxpayer with a \$100,000 house in the low elementary district would experience an increase in property taxes of just 0.31 cents to provide an additional dollar of funding for every student in the district; but a taxpayer with a \$100,000 house in the high elementary district would experience a tax increase of nearly \$20 to provide an additional dollar of funding for every student in the district.

Table 8 shows the coefficient of variation for mills/\$/ANB.

<b>Table 8</b> <b>Coefficient of Variation of Mills/\$/ANB</b>		
Type of District & Levy	Districts	Coefficient of Variation
Elementary Districts	236	591.9%
High School Districts	81	46.0%
K-12 Districts	47	51.1%

For high school and K-12 districts, the coefficient of variation is comparable for mills/\$/ANB and for total BASE mills. This means that for the majority of high school and K-12 districts, relative disparities in mills/\$/ANB and total BASE mills are about the same size. However, the disparities between districts with the highest and lowest tax efforts is much greater for mills/\$/ANB than for total BASE mills.

For elementary districts, the coefficient of variation is over ten times larger for mills/\$/ANB than for BASE mills. Also, disparities between mills/\$/ANB are much larger for the majority of districts as well as for the highest and lowest.

*Disparities in mills/\$/ANB are entirely due to differences in taxable value per student.* There are districts where taxable value per student is so high that the owners of a \$100,000 house have to pay less than a penny to increase spending per student by a dollar. At the other extreme, there are districts where taxable value per student is so low that owners of a \$100,000 house have to pay more than ten cents to increase spending per student by a dollar.

Differences in over-BASE mills due to differences in local spending choices probably are appropriate. To the extent that over-BASE spending is a local rather than state responsibility, differences in the tax effort required to spend an extra dollar per student may be appropriate. However, the differences are so large that they may be inappropriate.

## **Can Disparities in Tax Effort be Reduced?**

The previous sections of this paper have identified two significant causes of tax effort disparities that may be inappropriate. They are differences in non-levy revenue per student and differences in taxable value per student. Tax effort disparities could be reduced by reducing the differences in non-levy revenue per student and taxable value per student. Disparities also could be reduced by compensating for these differences, as currently is done with guaranteed tax base aid.

## **Can Differences in Non-Levy Revenue per Student be Reduced?**

Non-levy revenue includes a variety of revenue sources. It includes oil and natural gas production taxes, the coal gross proceeds tax, tuition, interest on school district funds, penalty and interest payments on late property taxes, and a HB124 block grant. Prior to fiscal year 2002 non-levy revenue included vehicle taxes and fees, corporation license tax paid by financial institutions, and the SB184 state reimbursement for reduction in local property taxes. The block grant in HB124 will replace these non-levy revenue sources.

Average non-levy revenue per student is \$582. Five percent of districts have higher non-levy revenue per student of \$1,820 or more, and five percent have lower non-levy revenue per student of less than \$118. The coefficient of variation is 99.9%. The coefficient of variation is a measure of variability from the average. A high coefficient indicates that school districts are more likely to be further from the average than given a low coefficient. A coefficient close to 0% would indicate that almost all observations are very close to the average.

Disparities in non-levy revenue per student could be reduced by bringing types of non-levy revenue that are unequally distributed to the state and redistributing them in a more equal way. Table 12 shows the seven largest categories of non-levy revenue. They make up 96.8% of total non-levy revenue. The remaining 3.2% is divided among sixteen categories. For each category, Table 12 shows the total revenue from that source and its percent of total non-levy revenue. It also shows how many districts receive that type of non-levy revenue and the coefficient of variation of revenue per student.

Table 12 Major Types of Non-Levy Revenue				
Revenue Type	Revenue	Percent of Total	Number of Districts	Coefficient of Variation
HB124 Block Grant (Estimated)	30,313,291	56.5%	448	278.1%
HB20 and SB417 Reimbursements	8,563,891	16.0%	441	150.2%
Oil and Natural Gas Production Tax	5,640,316	10.5%	112	189.5%
Interest Earnings	4,699,824	8.8%	422	118.3%
Tax Penalties and Interest	983,282	1.8%	388	237.7%
Coal Gross Proceeds	922,048	1.7%	6	71.7%
Tuition-Individual	838,909	1.6%	43	184.2%
All Other	1,708,884	3.2%		
Total	53,670,445	100.0%	448	99.9%

Three of the types of non-levy revenue are tied closely to the district and would be hard to justify bringing to the state. They are district interest earnings, penalties and interest on late property tax payments, and tuition payments.

If HB20 and SB417 reimbursements, oil and natural gas taxes, coal gross proceeds, and the HB124 block grant were brought to the state, almost 85% of non-levy revenue would come to the state. As shown in Table 13, *if the 85% were not included in some redistribution mechanism*, the remaining 15% of non-levy revenue sources would have a coefficient of variation of 249.6%. That is to say, that while the amount of non-levy revenue would be greatly reduced, the variability of the remaining non-levy revenue would be greater than before (249.6% compared to the original 99.9%).

Table 13 Selected Non-Levy Revenue				
Revenue Type	Revenue	Percent of Total	Number of Districts	Coefficient of Variation
Interest Earnings	4,699,824	57.1%	422	118.3%
Tax Penalties and Interest	983,282	11.9%	388	237.7%
Tuition-Individual	838,909	10.2%	43	184.2%
All Other	1,708,884	20.8%		
Total	8,230,899	100.0%	448	249.6%

On the other hand, if the 85% of non-levy revenue were redistributed to school districts in equal amounts per student, disparities in non-levy revenue would be significantly reduced. If this were done, 90% of districts would have non-levy revenue per student between \$306 and \$558 and the coefficient of variation would be reduced to 35%.



## Can Disparities in Taxable Value be Reduced?

School districts have different taxable value per student because there are different types and amounts of property in each district. Average taxable value per student is \$45,637. Five percent of districts have taxable value per student of \$162,898 or more. Five percent have taxable value per student of less than \$6,807. Coincidentally, the coefficient of variation is 99.9%.

It is not possible to reduce differences in taxable value per student by moving property between districts. However, it is possible to transfer taxation of specific types of property to the state. This has been done with oil and natural gas production taxes. This property was formerly subject to property taxes, but those taxes have been replaced by flat taxes collected by the state. The purpose in these cases was to make taxation uniform statewide, and the revenue is returned as non-levy revenue to the local jurisdictions where oil and natural gas are produced. However, property could be taxed by the state and remain in the property tax system.

Table 14 shows taxable value for each of the twelve classes of property subject to mill levies. (There is no class 11.) For each class, it also shows the percentage of total taxable value in that class, the number of districts with property in that class, and the coefficient of variation for the districts that have property in that class.

<b>Table 14</b>				
<b>Concentration of Taxable Value by Property Class</b>				
Property Class	Taxable Value	% of Total Taxable Value	Number of Districts	Coefficient of Variation
1 Mines Net Proceeds (except metal & coal)	5,178,965	0.3%	10	249.6%
2 Metal Mines Gross Proceeds	8,460,975	0.5%	16	121.6%
3 Agricultural Land	139,318,879	8.3%	445	214.4%
4 Residential and Commercial	920,536,187	54.8%	448	151.7%
5 Co-ops, Pollution Control	39,008,610	2.3%	422	206.2%
6 Livestock	17,971,637	1.1%	442	243.0%
7 Selected Non-Centrally Assessed Utility	155,867	0.0%	8	92.5%
8 Business Equipment	112,782,734	6.7%	448	554.6%
9 Pipelines, Electric Utilit. (except generation)	230,832,978	13.7%	384	315.0%
10 Forestland	8,708,849	0.5%	321	351.6%
12 Railroad and Airline	49,641,444	3.0%	291	201.1%
13 Electric Utilities Electric Generation	147,142,750	8.8%	379	560.6%
Total	1,679,739,875	100.0%	448	99.9%

All or almost all districts have property in classes 3, 4, 5, 6 and 8. These property classes contain 73% of total taxable value. Few have property in classes 1, 2 or 7. For classes 9, 10, 12 and 13, there are at least sixty districts with no property in each class. The variation in the amount of taxable value per ANB is considerable. For example, class 13 has a coefficient of variation of 561% while class 4 has a coefficient of variation of 152%. The amount of variation in the taxable value per ANB is considerably less for class 4 property than it is for class 13 property.

The same property is shown in Table 15 with two variations. Class 7 property is shown combined with class 5 property, and class 13 property is split into two groups; telecommunication property and electric generation property.

<b>Table 15</b> <b>Concentration of Taxable Value by Property Class - Class 13 Split</b>				
Property Class	Taxable Value	% of Total Taxable Value	Number of Districts	% of Total Districts
1 Mines Net Proceeds (except metal & coal)	5,178,965	0.3%	10	2.2%
2 Metal Mines Gross Proceeds	8,460,975	0.5%	16	3.6%
3 Agricultural Land	139,318,879	8.3%	445	99.3%
4 Residential and Commercial	920,536,187	54.8%	448	100.0%
5,7 Co-ops, Pollution Control	39,164,477	2.3%	422	94.2%
6 Livestock	17,971,637	1.1%	442	98.7%
8 Business Equipment	112,782,734	6.7%	448	100.0%
9 Pipelines, Electric Utilit. (except generation)	230,832,978	13.7%	384	85.7%
10 Forestland	8,708,849	0.5%	321	71.7%
12 Railroad and Airline	49,641,444	3.0%	291	65.0%
13 Telecommunication Utilities	46,752,300	2.8%	357	79.7%
13 Electric Utilities Electric Generation	100,390,450	6.0%	40	8.9%
Total	1,679,739,875	100.0%	448	100.0%

Property classes range from classes of common property to classes of not so common property. For example, class 3 agricultural land and class 4 residential and commercial property can be considered common types of property. This type of property is located throughout the state. This is measured by the number of school districts that have class 3 and class 4 property in their tax base. Each school district has some class 4 residential and commercial property and 445 of the 448 (98.7%) school districts have some class 3 agricultural property. Other common classes of property are classes 5, 6, 7, 8, 9 and 13 telecommunication property. Combined, these eight common classes of property represent 93% of the statewide taxable valuation.

The non-common classes of property, classes 1, 2 and 13 electrical generation property, could be considered more unique types of property. The number of school districts that have class 1, 2 or 13 electrical generation property in their tax base can also measure this. Having a mine in the tax base of a school district is rare. Only 26 of the 448 (5.8%) school districts have class 1 or class 2 properties in their tax base. Almost as rare is electric generation property in a school district tax base. Only 40 of the 448 (8.9%) school districts have electric generation property. In terms of taxable value, this property can account for a large share of the total, yet it is highly concentrated. For example, the total taxable value of class 8 business equipment (\$112,782,734) and class 13 electric generation equipment (\$100,390,450) is very similar. However, while the taxable value of class 8 business equipment is shared by all school districts, the taxable value of electric generation property is shared by only 40 school districts. Likewise, over 321 school districts share \$8,708,849 in taxable value of class 10 forestland while only 16 districts share a similar amount of taxable value of class 2 metal mines gross proceeds taxable value.

There are many other illustrations one can give to show the disparity in taxable value of the school districts. Some of these comparisons would make one consider more broadly what properties should be considered non-common properties. However, the conclusion is the same; differences in school districts' taxable value contributes significantly to the tax capacity disparity and one way to address this issue is to have some non-common types of property taxed at the state level with the funds available to reallocate more equitably within the school funding formula.

In addition, the concentration of the high valued non-common property in a school district and other associated local taxing jurisdictions results in lower local mill levies. For example, in tax year 2000, average mill levies were 332.69 for class 1 property; 380.12 for class 2 property, and 253.37 for class 13 electric generation property. If this property were taxed at the state level using the statewide average mill levy of 430 mills, considerably more funds would be generated by this non-common property.

### Are There Other Ways to Reduce Disparities in Local Tax Effort?

Local property taxes pay for part of the cost of schools. Increasing state funding would reduce the amount of local funding needed to meet any budget level. It could also reduce local tax disparities.

Increasing direct state aid would reduce the amount of each district's BASE budget that must be funded with local property taxes. This would not affect those districts that already fund their BASE budget without local levies, but would reduce the tax effort required from all other districts.

Increasing guaranteed tax base aid would reduce mill levies required to fund the BASE budget for all districts that currently receive GTBA and for districts that would become eligible for an expanded program.

Increasing state funding in either or both of these ways would reduce disparities in BASE mills by reducing required tax effort for districts with the highest mills, while not affecting tax effort for districts with low or few base mills.

The state currently provides no funding for over-BASE spending. Providing guaranteed tax base aid for over-BASE spending could reduce the disparities in districts' tax effort to spend another dollar per student.

Increasing state funding for schools without bringing non-levy revenue or property taxes to the state would require either increases in other state taxes or reductions in other state spending.

## Conclusions

The federal government and the courts have provided standards pertaining to equity in school *spending*. No standards of equity have been identified pertaining to school *funding*, particularly with respect to differences in property taxes needed to fund schools.

There are significant disparities in the local tax effort required to fund schools in Montana. A few districts do not levy any local mills, while the highest local school levy is 107.9 mills.

Within Montana's current school funding system, there are several other reasons for differences in local tax effort including differences in taxpayer spending preferences across school districts, differences across districts in taxable value per ANB, differences in total non-levy revenue per ANB available, differences in special education costs, changes in enrollment, and differences in school size.

Schools are required to spend between a minimum and maximum budget amount, but the state funds only a portion of the minimum, or BASE, budget. Currently, decisions to spend over the BASE budget are purely local decisions that require local tax effort. Consequently, disparities in the local tax effort required to fund districts' BASE budgets are smaller than the disparities in tax effort required to fund the total budget of schools. The difference between the highest and lowest BASE levies is about 50 mills.

A difference in tax effort may or may not be appropriate depending on how the particular reason for the difference is viewed in the light of generally accepted principles of tax equity. These principles suggest that similarly situated taxpayers should pay similar taxes; and that any difference in taxes should be related in a rational way to relevant differences between taxpayers. Tax differences between local jurisdictions that violate these principles often are accepted when the taxes pay for local services that are a local responsibility.

When viewed in this light, differences in tax effort due to differences in taxpayer spending preferences are probably justified and appropriate. Differences in tax effort required because of differences in special education needs, the availability of non-levy revenue per ANB, or the taxable valuation per ANB in the district may not be as appropriate.

A statistical analysis of the data indicated that the most important causes of tax effort disparities are local choices of how much to spend over the BASE budget, differences in non-levy revenue per student, and differences in taxable value per student.

Disparities in tax efforts are not a sufficient reason to examine or suggest changes in the system. These disparities must be large enough to warrant a change. An examination of the data suggests that in Montana differences in the tax effort needed to fund local schools in Montana may be large enough to warrant an examination of the system and recommend alternatives to address these differences.

If existing disparities in local tax effort are inappropriate, they could be reduced several ways:

- Some sources of non-levy revenue could be brought to the state and redistributed to school districts more equitably within the school funding formula.
- Some classes or types of property could be removed from local school tax bases and taxed only at the state level with the funds distributed to school districts more equitably within the school funding formula.
- Increasing direct state aid or guaranteed tax base aid under the current school funding formula would reduce disparities in tax effort required to fund districts' BASE budgets.
- Providing guaranteed tax base aid for over-BASE spending would reduce disparities in taxes to support over-BASE spending.

Providing additional state funding without bringing non-levy revenue or property taxes to the state would require increasing state taxes or reducing other state spending.

## Questions

There are several policy questions the study council needs to address in order to determine whether the disparities in tax effort are appropriate, whether the disparities in tax effort should be reduced, and if so, how the disparities should be reduced.

Question 1    **Does the council believe that the tax effort disparities in the school funding system are significant?**

Option 1:    No, do not continue.

Option 2:    Yes, continue with the questions.

Question 2    **Does the council find these disparities to be inappropriate?**

Option 1:    No, do not continue.

Option 2:    Yes, continue with the questions.

Question 3    **Does the council believe that the tax effort disparities in the BASE budget are significant?**

Option 1:    No.

Option 2:    Yes.

Question 4    **Should disparities in tax effort required to fund districts' BASE budgets be reduced?**

Option 1:    No. The existing disparities in tax effort required to fund districts' BASE budgets are acceptable.

Option 2:    Yes, disparities in BASE mills should be reduced.

Question 5    **Does the council believe that the tax effort disparities in the over-BASE budget are significant?**

Option 1:    No.

Option 2:    Yes.

**Question 6**    **Should disparities in tax effort required to fund districts' over-BASE spending be reduced?**

Option 1:    No. The existing disparities in tax effort required to fund district's over-BASE spending are acceptable.

Option 2:    Yes, disparities in over-BASE tax effort should be reduced.

**Question 7**    **Without additional revenue sources, reducing disparities in local tax effort to fund schools probably will increase property taxes for some property owners and decrease property taxes for others. Is this an acceptable consequence of reducing tax effort disparities?**

Option 1:    No, additional revenue sources need to be explored as well as more equitability distributing of the non-levy revenue and taxable value per ANB.

Option 2:    Yes.

**Question 8**    **Does the council want to explore more information on the impact of non-levy revenue on the disparities in tax effort and the options for dealing with more equitability distributing the non-levy revenue among school districts?**

Option 1:    No, don't do any more work in this area.

Option 2:    Yes, continue to work in this area and bring additional information and options to the council.

**Question 9**    **Does the council want to explore more information on the impact of taxable value differences on the disparities in tax effort and the options for dealing with more equitability distributing property taxes from non-common property tax classes among school districts?**

Option 1:    No, don't do any more work in this area.

Option 2:    Yes, continue to work in this area and bring additional information and options to the council.